

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017406**Date Inspected:** 05-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Xu Tao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment & Bike Path**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 006859

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

1. BK006A3-002-025,026
2. BK006A4-002-015,066,067
3. BK006A6-002-150,155,029
4. BK006A8-002-121,123,126,041
5. BK004A3-010-025,026
6. BK004A4-010-015,066,067
7. BK004A6-010-150,155,029
8. BK004A8-010-121,125,123,041

This QA Inspector observed the following work in progress:

Bay 19

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## WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint BK004A6-002-002 and 007 located on Bike Path. Welder is identified as 062732. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2332-Tc-Ub-F.

FCAW welding of weld joint BK004A6-012-001 and 165 located on Bike Path. Welder is identified as 062783. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2333-Tc-Ub-F.

FCAW welding of weld joint BK004A6-012-002 and 007 located on Bike Path. Welder is identified as 062806. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2332-Tc-Ub-F.

FCAW welding of weld joint BK004A1-003-008 located on Bike Path. Welders are identified as 062755 and 2086632. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2231-B-U2-F.

Description of Incident: During random in-process visual inspection of welds located on OBG Bike path at bay 19, this Quality Assurance Inspector (QA) observed that ZPMC personnel performing repair welding on bottom cover plate plug weld repair area with cracks. QA is visually found more than 20 spots transverse and longitudinal cracks around plug welded areas. ZPMC welding personnel performed welding over cracks. The cracks are not removed completely. This QA requested to ZPMC QC, to perform critical welding report as per approved CWR and immediately cross check with MT. The bike path number is identified as BK004A-004. The weld is non Seismic Performance Critical Members (non SPCM). The thickness of the bottom cover plate is 6mm. This bike path is located at bay #19. The indications are clearly marked by QA on/near the weld. See the attached picture.

Bay 16

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint LD3031-001-053 located on the Longitudinal Diaphragm Lifting lug of OBG Segment 13AW. Welder is identified as 045280. ZPMC Quality Control (QC) is identified as Mr. Li Shi You. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-Tc-U5-F.

FCAW welding of weld joint LD3031-001-060 located on the Longitudinal Diaphragm Lifting lug of OBG Segment 13AW. Welder is identified as 048696. ZPMC Quality Control (QC) is identified as Mr. Li Shi You. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-Tc-U5-F.

FCAW welding of weld joint LD3036-001-059 located on the Longitudinal Diaphragm Lifting lug of OBG Segment 13CW. Welder is identified as 045143. ZPMC Quality Control (QC) is identified as Mr. Li Shi You. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-Tc-U5-F.

# WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

FCAW welding of weld joint LD3036-001-032 and 034 located on the Longitudinal Diaphragm Lifting lug of OBG Segment 13CW. Welder is identified as 045143. ZPMC Quality Control (QC) is identified as Mr. Li Shi You. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-Tc-U5-F.

Bay 14 & 15

This QA Inspector observed the following work in progress:

Submerged Arc Welding (SAW) welding of weld joint SEG3014-005 located on the deck plate to deck plate splice joint of OBG Segment 13BW. Welder is identified as 207237. ZPMC Quality Control (QC) is identified as Miss. Lv Yun. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2221-B-L2c-S-2.

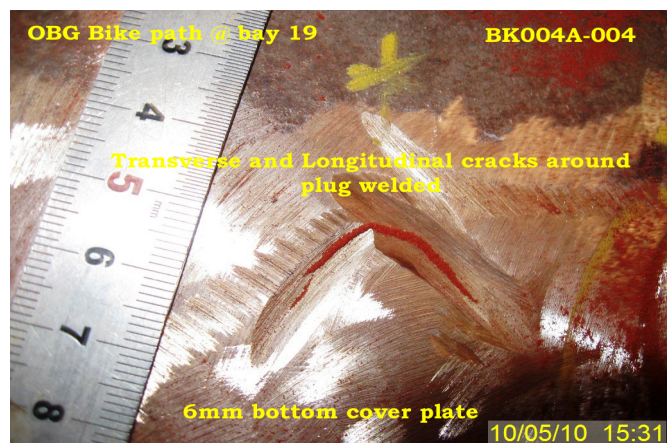
SAW welding of weld joint SEG3019A-004 located on the bottom plate to bottom plate splice joint of OBG Segment 14E. Welder is identified as 058100. ZPMC Quality Control (QC) is identified as Miss. Lv Yun. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2221-B-L2c-S-2.

Visual Inspection after Blast

Segment 11DW

This QA Inspector performed a preliminary random visual inspection on OBG Segment 11DW, after the grit blast of the interior components of the deck panel, floor beams and corner assemblies of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

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## WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Vibin	Quality Assurance Inspector
<b>Reviewed By:</b>	McClendon,Timothy	QA Reviewer

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